MONMOUTH COUNTY

Cancer Control and Prevention Capacity and Needs Assessment Report Summary

December 2004

Funds and Support Provided By

New Jersey Department of Health and Senior Services
Center for Cancer Initiatives
The Office of Cancer Control and Prevention

Notices:

Medicine is an ever-changing science. As new research and data broaden our knowledge, conclusions may change. The authors and reviewers have endeavored to check the sources of information and to utilize sources believed to be the most reliable in an effort to provide information that is as complete as possible at the time of submission and generally in accord with appropriate standards. However, in view of the possibility of human error or changes in medical science, this work cannot be warranted as being complete and accurate in every respect. Readers are encouraged to confirm the information contained herein with other sources. Information concerning some of the sources of data, rationale for its utilization, acknowledgements of specific parties contributing to these efforts, as well as links to cancer-related information may be found at www.umdnj.edu/evalcweb/.

This county-level Report Summary summarizes the larger county report, which is a baseline evaluation of this county, performed as part of the Capacity and Needs Assessment initiative of the New Jersey Comprehensive Cancer Control Plan (www.state.nj.us/health/ccp/ccc_plan.htm), under the direction of the New Jersey Department of Health and Senior Services (NJDHSS) Office of Cancer Control and Prevention (OCCP) (www.state.nj.us/health/ccp/), the University of Medicine and Dentistry of New Jersey (UMDNJ) (www.umdnj.edu/evalcweb/), and the Evaluation Committee of the Governor's Task Force on Cancer Prevention, Early Detection and Treatment in New Jersey (Task Force Chair: Arnold Baskies, MD; Evaluation Committee Chair: Stanley H. Weiss, MD).

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Suggested Citation for this Report Summary:
New Solutions, Inc. Monmouth County Cancer Capacity and Needs Assessment Report Summary, December 2004. In: *New Jersey Statewide County-based Cancer Capacity and Needs Assessment Initiative, 2003–2004*, Editors: Stanley H. Weiss (UMDNJ) and Margaret L. Knight (NJDHSS).

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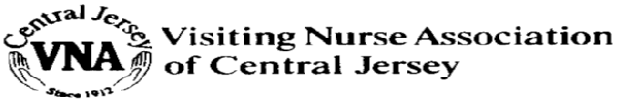

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Table of Contents Page

Monmouth County
Cancer Capacity and Needs Assessment Report Summary

Introduction

The Office of Cancer Control and Prevention (OCCP) of the New Jersey Department of Health and Senior Services (NJDHSS) in conjunction with the mandate from the Governor's Task Force on Cancer Prevention, Early Detection and Treatment in New Jersey (Task Force) is developing comprehensive capacity and needs assessment reports concerning cancer, individualized for each county in the state. This Report Summary highlights key findings in the Monmouth County report.[1]

The Task Force released New Jersey's Comprehensive Cancer Control Plan (NJ-CCCP) in 2002.[2] Each county was commissioned to develop a comprehensive capacity and needs assessment report, as part of the initial implementation steps for the NJ-CCCP. The full Report and this Report Summary were developed under the direction of the University of Medicine and Dentistry of New Jersey (UMDNJ) and the Evaluation Committee of the Task Force, in furtherance of the NJ-CCCP (which can be found at: http://www.state.nj.us/health/ccp/ccc_plan.htm). This particular assessment was funded by the OCCP and conducted under the contract and direction of the New Jersey Cancer Education and Early Detection (NJCEED) agency in Monmouth County: Visiting Nurse Association of Central Jersey.

The purpose of the capacity and needs assessment reports is to identify the major cancer issues affecting each county and the county's available resources, or lack thereof, for cancer prevention, screening, and treatment, and to propose recommendations for improvement. The Monmouth County Report[1] analyzes the population demographics and the cancer incidence and mortality rates and distribution of stage at diagnosis for the seven priority cancers of the NJ-CCCP (breast, cervical, colorectal, lung, oral, melanoma, and prostate), as well as the current resources available in the county. These data guided the development of evidence-based recommendations and interventions to address cancer control priorities at local and state levels.

The study includes information in support of the public health initiatives as articulated in *Healthy New Jersey 2010* and the *New Jersey Cancer Comprehensive Control Plan*. Epidemiology data were provided by the New Jersey State Cancer Registry[3] and by the National Cancer Institute's Surveillance, Epidemiology and End Results (SEER) Program.[4] Additional quantitative data were obtained from the Centers for Disease Control and Prevention (CDC) Behavioral Risk Factor Surveillance System (BRFSS), the U.S. Census Bureau,[5] the Cancer Resource Database of New Jersey (CRDNJ)[6] developed specifically for this project, and various other state and national resources including the National Cancer Institute.[7] Qualitative information was obtained through key informant interviews with public health officers, healthcare providers, educators, and representatives from non-profit organizations and consumer advocates.

Section 1 – County Demographic Profile

Monmouth County, located in eastern-central New Jersey, incorporates a major part of New Jersey's northern Atlantic coastline. With 615,301 persons,[8] Monmouth County is New Jersey's fourth largest county in terms of population. The county is comprised of 53 municipalities, including two small cities, 15 townships, 35 boroughs, and one village. Monmouth County is accessible via major and local road systems and by public transportation including NJ Transit buses, trains, and ferries. Monmouth County was selected from 300 communities nationwide as the "Third Best Place to Live."[9]

The population of Monmouth County is essentially bifurcated, with young families largely situated in the western portion of the county and communities of older residents mainly along the eastern shoreline. Seniors (age 65+) comprise 13%[a] of the county population, the same as the statewide percentage. Spring Lake Heights, Sea Girt, Deal, and Spring Lake each have more than one-quarter of their residents over age 65 (Table I-3).[b,(1)] Many of these seniors live alone and, predictably, many require healthcare and support services.

The population of Monmouth County is predominantly white (84%) with small concentrations of blacks (8%), Asians (4%), and other races (2%) (Table I-4).[1;8] From 1990 to 2000, the number of white residents increased by 7% while the number of blacks increased by 5%. The number of Asians increased by 62%, making this the fastest growing racial group in the county.[8;10] Hispanic residents[c] comprise 6% of the county population (Table I-7).[1] This ethnic group's population increased by 70%, making it the fastest growing ethnicity in the county for which separate data are available. In some municipalities (Long Branch, Freehold Borough, Howell), Hispanics outnumber blacks and constitute the largest minority population.

Fifteen percent (15%) of the Monmouth County residents speak languages other than English, and 6,318 households are considered linguistically isolated.[d,8] Languages spoken other than English are primarily Spanish, various Asian languages, and Italian. Asbury Park, Ocean Township, Howell, Freehold Borough, Marlboro, and Eatontown contain the largest numbers of linguistically isolated households in the county (Figure 1-5 and Table 1-10).[1;8]

Throughout the 1990s, Monmouth County income growth outpaced state and national averages. The U.S. Census reported median household income in Monmouth County rose 40%, and at the time of the Census, was 17% higher than that in the state as a whole.[9] Over 12% of Monmouth County households reported incomes greater than $150,000 per year, compared with 8.6% in New Jersey and 4.6% in the United States.[8] Monmouth County ranked fifth in the State in percentage of adults aged 25 and over with a high school education or better.[8]

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[a] In general, percentages in this report are rounded to two digits.
[b] Tables and figures in parentheses refer to detailed supporting data found in the full report.
[c] Hispanics and non-Hispanics may be of any race. Racial categories include both Hispanics and non-Hispanics.
[d] A **linguistically isolated household** is one in which no member 14 years old and over (1) speaks only English or (2) speaks a non-English language and speaks English "very well". In other words, all members 14 years old and over have at least some difficulty with English.

Despite the strong economic profile of Monmouth County, some pockets of poverty exist. These are concentrated in Asbury Park, Keansburg, Long Branch, Freehold Boro, Red Bank, and Neptune where the number of persons living at or below the federal poverty level exceeds 10% of the population (Figure 1-6 and Table 1-16).[e,(1;8)]

Health status indicators for Monmouth County show a somewhat lower birth rate and higher death rate when compared with New Jersey as a whole.[(11;12)] Cancer is the second leading cause of death in the county, as in the state. Excessive alcohol use, a major risk factor for many cancers, is higher in Monmouth County than in New Jersey as a whole, as measured by the rate of resident admissions for alcohol addiction.[(13)] Although data on tobacco usage in Monmouth County were not available for this study, key informants stated that smoking, particularly among youth, continues to be a problem.

Section 2 – Overview of Overarching Issues

This section includes a review of available resources in Monmouth County for cancer prevention, education, treatment, and support as well as activities under way to modify behaviors and provide universal access to cancer services. Information pertaining to cancer resources in Monmouth County is from numerous sources and includes the 2003–2004 Cancer Resource Database of New Jersey (CRDNJ)[(6)], individual web sites, inventories provided by the American Cancer Society, and personal interviews. Over 212 agencies in Monmouth County participated in the 2003–2004 CRDNJ survey.

County Infrastructure

There is no central countywide health department in Monmouth County. Instead, the county is comprised of four regional and five municipal health departments. The health departments provide a varied amount of health screening and education services. There is no comprehensive plan to address cancer in the county. The decentralized public health infrastructure lacks sufficient coordination and collaboration, although improvements are under way. However, most public health officers feel constrained by available resources.

Prevention and Education

Leadership in cancer early detection and education comes from the New Jersey Cancer Education and Early Detection (NJCEED) Program, administered by the Visiting Nurse Association of Central Jersey (VNACJ); the American Cancer Society Jersey Shore Region (ACS); and the five hospitals of Monmouth County. Other agencies such as Planned Parenthood of Central New Jersey, the Monmouth County Office on Aging, and Monmouth County Office of Hispanic Affairs are also active. Faith-based organizations participate to a limited extent. Major employers promote wellness programs and, to a limited extent, provide educational programs with ACS and VNACJ.

Forty-nine organizations in Monmouth County provide a wide array of cancer prevention and education services. Extensive efforts notwithstanding, access is more difficult for minorities and low-income residents, especially blacks and Hispanics. Key informants identified problems in

[e] All figures for poverty, income, and employment are from the 2000 Census, but refer to the year 1999.

specific portions of the county including Red Bank, Freehold Boro, Keyport, Keansburg, Asbury Park, Long Branch, Manasquan, and Neptune, where many minority populations reside. Informants also expressed concerns about the underinsured, i.e., the working poor with insufficient health coverage, who tend to "fall between the cracks" and do not access health care simply because they cannot afford the expense. Contributing factors limiting access include language, culture, transportation, and awareness. Medicaid recipients also experience difficulty obtaining specialty care, as only a limited number of physicians have contracts with the Medicaid health maintenance organizations.

Transportation

Transportation was identified by nearly all key informants as the major barrier to receiving cancer services. According to a 1998 report, 54% of Monmouth County Work First New Jersey recipients do not have access to an automobile.[14] While several agencies provide no-cost or low-cost transportation assistance, restrictions often impede their effectiveness.

Comprehensive School Education

Education about cancer and cancer prevention, safer sex, sexually transmitted diseases, smoking risks, and excessive sun exposure are included in most school curricula. The ACS collaborates closely with Monmouth County schools and provides programs for teacher professional development; according to the ACS, this collaboration has increased in recent years. Outstanding programs are found in Manalapan, Marlboro, Middletown, and Freehold.

There is evidence, however, that most schools do not address cancer-related subjects sufficiently. In a survey of 59 Monmouth County schools, only eight (14%) teach breast self-examination and eight (14%) teach testicular self-examination. Approximately 31% address alcohol use, smoking prevention, or tobacco use.

Palliation/Quality of Life/Survivorship

Although palliative care is adequate in Monmouth County (there are nine hospice organizations), not enough is known by the general population about palliative care resources. According to key informants, there is a general misconception about palliative care and its benefits. Through outreach to healthcare providers and also to the general public, a major shift in gaining acceptance of palliative care is under way in Monmouth County, although more needs to be done.

A broad array of patient and family support services are provided through the ACS, numerous other non-profit organizations, and the five Monmouth County hospitals. Over 30 patient and family support activities and 10 bereavement support groups, not including those provided by hospices, are available in Monmouth County. One notable resource is the American Cancer Society, a nationwide, community-based voluntary health organization dedicated to helping everyone who faces cancer through research, patient services, early detection, treatment, and

education, which maintains a web site and a national call center[f] (1-800-ACS-2345 ext. 1).[15] Patients and others can obtain referrals to local cancer resources as well as a local "patient and family services director/coordinator" who may be able to serve as a "patient navigator."

According to key informants, access to and effectiveness of support programs could be improved. Support programs tend to be located at the hospitals or outside of minority neighborhoods. Key informants also identified need for greater cultural sensitivity to family dynamics.

Providers and Treatment

Patient care in Monmouth County is considered excellent by key informants interviewed for this study. The county is fortunate to have five medical centers, all of which provide substantial cancer diagnostic and treatment services. Approximately two-thirds of Monmouth County cancer inpatients receive treatment at a Monmouth County hospital (Table 2-8).[1] In addition, 19 independent radiology/mammography facilities along with one freestanding endoscopy center offer a wide range of diagnostic tests, and most accept government payment. Private practice internists, surgeons, and oncology specialists are abundant in the county, although only a small number accept Medicaid patients. Home health agencies and seven hospices provide nursing care and personal assistance to patients at home. Four primary care clinics and five hospital-based clinics offer cancer screening and referrals to low-income or special need populations. A detailed description of resources available in the county is contained within the full report.[1]

Advocacy

National and statewide organizations such as the American Cancer Society and the Susan G. Komen Foundation are the major cancer advocates. In 2003, the ACS Jersey Shore Region expanded its School Health Initiatives to advocate statewide for youth programs on proper nutrition and increased physical activity.

Nutrition and Physical Activity

In Monmouth County, nutrition and physical activity are identified as important areas of focus that need to be promoted, particularly in the schools. According to representatives of the ACS, along with cancer education, general health education in Monmouth County schools does not pay sufficient attention to teaching youth to maintain healthy lifestyles.

Childhood Cancer

Pediatric care in Monmouth County is considered excellent, according to key informants. Approximately 80% of pediatric cases are treated within the county.[1] However, there is no designated children's hospital in Monmouth County. The Valerie Fund, a special program dedicated to the local care of children with serious illness and open to all regardless of ability to pay, is available at Monmouth Medical Center in Long Branch. Currently, approximately 15 active oncology patients receive care and follow-up at the Valerie Fund.

[f] The national call center takes 1.2 million calls per year. See http://www.cancer.org/docroot/ESN/content/ESN_3_1X_ACS_National_Cancer_Information_Center.asp?sitearea=ESN (accessed 9/22/2004).

Section 3 – Cancer Burden

All incidence[16] and mortality[4] rates cited herein are per 100,000 and age-adjusted to the 2000 U.S. population standard.[5] All county and state rates are average annual rates during 1996–2000. For simplicity, the 1996–2000 average annual age-adjusted incidence or mortality rate hereinafter will be abbreviated and referred to as incidence or mortality rate, respectively. The reason the five-year average has been routinely used is that the small number of cases in a single year leads to statistical variations that are not generally meaningful. For U.S. incidence rates, 1999 or 2000 rates were used. Unless otherwise specified, all rates are for invasive cancer only.

Summary Table of Selected[a] Age-Adjusted[b] County Cancer Statistics, Monmouth County, 1996–2000[c]

Type of Cancer, Gender	Estimated Prevalence[d]	Incidence per 100,000[e]	Mortality per 100,000[e]
All cancers,[f] Monmouth County			
Male	9,353	655.8	266.8
Female	14,527	479.3	199.1
NJ-CCCP Priority Cancers by Gender			
Breast, female	5,489	141.3	32.7
Cervical, female	594	10.5	3.4
Colorectal, male	1,133	84.3	31.5
Colorectal, female	1,609	57.7	***22.2***
Lung, male	337	94.0	76.6
Lung, female	473	***62.7***	***47.7***
Melanoma, male	818	***29.8***	***5.9***
Melanoma, female	980	***17.8***	***2.4***
Oral/Oropharyngeal, male	305	17.2	4.3
Oral/Oropharyngeal, female	219	***7.3***	***2.0***
Prostate, male	3,637	193.9	32.5

[a] Based upon the NJ-CCCP.
[b] Age-adjusted to 2000 U.S. Census population standards. Age-adjustment is used to describe rates in which statistical procedures have been applied to remove the effect of differences in composition (specifically, variations in age distribution) of the various populations. This is important in order to portray an accurate picture of the burden of cancer, since cancer is known to disproportionately affect persons of differing ages.
[c] Rates are average annual rates during the time period 1996 through 2000.
[d] Prevalence is the measurement of burden of disease in the population at a particular point in time. Within this report, it represents the number of people alive who have ever been diagnosed with the disease. Prevalence figures given here are rough theoretical estimates, based on a number of assumptions, and computed by applying national prevalence-to-incidence ratios to Monmouth County's average annual crude incidence counts for the five years 1996–2000, separately for each gender. Actual prevalence is likely to be of the same order of magnitude as the estimate.[17]
[e] Incidence and mortality are gender-specific, age-adjusted annual rates, not counts. A rate at least 10% higher than the corresponding state rate is shown in bold italics.
[f] "All cancers" represents the sum of all invasive cancer during the time period, not just the seven cancers presented in detail below.

Overall Cancer Burden

The overall cancer burden in Monmouth County exceeds that of most other counties in New Jersey. Incidence and mortality rates for cancer exceed statewide averages for nearly all gender and race categories. For all cancers combined, Monmouth County incidence rates averaged 655.8 for males compared to 628.7 statewide and 479.3 for females compared to 453.7 statewide (Table 3-1).[1] Monmouth County cancer incidence rates overall rank second highest in the state, exceeding the average by 25 per 100,000.[18] White female incidence rates in Monmouth County for all cancers combined are the highest in the state. In Monmouth County, approximately 1,353 persons die of cancer each year, comprising 8% of all cancer-related deaths in the state. Male mortality rates for all cancers combined averaged 266.8 compared to 261.4 statewide, and female mortality rates averaged 199.2 in Monmouth County compared to 181.7 statewide. Cancer mortality rates in Monmouth County ranked fourth among the 21 New Jersey counties and fifth in number of cases.(Table 6-1)[1;19] For all cancers, mortality rates (223.6) were significantly above the *Healthy New Jersey 2010* recalculated endpoint of 159.9 (Table 4-1).[1;20] Similar to the state, mortality rates have been declining but at a much slower rate – just 0.2% per year since 1976 compared to 1.3% statewide from 1991 to 2000 (Table 6-1).[1] While mortality rates for the seven cancers under study are declining statewide, rising mortality rates are noted in Monmouth County for lung cancer and melanoma (Tables 6-2 – 6-8).[1]

As a county with a largely white population, Monmouth had 92% of its new cancer cases among whites, compared to 87% statewide. Cancer incidence rates were higher for black males than for white males (701.7 versus 658.8, respectively) but lower for black females than for white females (414.2 versus 424.4, respectively). In general, Hispanic[g] incidence rates for cancer are lower than for other race/ethnicity categories (Table 3-4).[h,1]

Cancer Burden by Site

The cancer burden in Monmouth County is greatest for breast, colorectal, lung, and prostate cancers. These types of cancer account for 55% of all new cancer diagnoses and 83% of all cancer deaths in Monmouth County.

Breast Cancer

Over the time period 1996 through 2000, inclusive, the total number of women diagnosed with invasive[i] breast cancer was 2,401. This is the total incidence of new breast cancer cases over the

[g] Hispanics and non-Hispanics may be of any race. Racial categories include both Hispanics and non-Hispanics. Some tables include summaries for white and black race and for Hispanic ethnicity. Data on non-Hispanics is not available. Comparisons of Hispanic rates with rates for the whole population may underestimate the difference between Hispanics and non-Hispanics because Hispanics are included in the total population. Further, the relatively small numbers of blacks and Hispanics in Monmouth County can lead to unstable calculations of rates.

[h] Other minority groups raise special issues as well, related to culture, language, and access to care. Although there are concerns that minorities bear disproportionate portions of the cancer burden, their limited numbers lead to their omission from many sources of statistical data. Thus, precise numbers and rates are not readily available and are not portrayed explicitly.

[i] *In situ* cancers are not included in this or other totals.

five-year period. Thus, the annual breast cancer incidence was 480 cases per year. Incidence rates for breast cancer in Monmouth County (141.3) exceeded statewide averages (138.5) and remained relatively constant over the five year period, although rates for women aged 40 to 49 and 50 to 64 appeared to be increasing (Table 3-9).[21] Mortality rates were above the average (32.7 versus 31.3 for county and state, respectively) and exceeded the *Healthy New Jersey 2010* recalculated endpoint of 21.5.[22]

While breast cancer incidence is higher statewide and nationally among white women when compared to black or Hispanic women, mortality is higher among blacks. In Monmouth County, racial/ethnic experiences were similar. From 1996 to 2000, breast cancer incidence rates for white women in Monmouth County averaged 146.3 compared to 104.4 for black women and 127.9 for Hispanic women (Table 3-9).[21] Breast cancer mortality rates averaged 32.7 for white females and 39.6 for black females (Table 3-11).[21] By age, the greatest number of new breast cancer cases in the county occured among women aged 50–64, and the highest breast cancer incidence rate was among women 65 and older (Table 3-10).[21] Mortality rates were highest among women over age 65 (Table 3-12).[1]

Approximately two-thirds of new breast cancer cases in the county were diagnosed *in situ* or at the localized stage. Regional and distant tumors accounted for 28%, which was comparable to statewide experience. Disparities exist when comparing race and disease stage. In Monmouth County, 28% of white women were diagnosed with regional or distant tumors, while 32% of black women and 41% of Hispanics were diagnosed at these late stages (Table 3-13).[1],[j]

The key to defeating breast cancer in Monmouth County lies in maintaining and expanding access to early detection and reinforcing the message that "early detection saves lives." Mammography is the accepted gold standard for early detection of breast cancer. According to the Centers for Disease Control and Prevention (CDC) and the State of New Jersey Office of Cancer Control and Prevention (OCCP-NJ), among 3,923 New Jersey women aged 50 and over who were interviewed from 2000 through 2002, 78% reported having had a mammogram within the past two years.[23;24] Based on interviews of 209 women in Monmouth County, the county rate did not differ significantly from the state rate.[25] As there are 97,363 women aged 50 and over in the county, the BRFSS data suggest that at least 75,943 mammograms per year were conducted in this age group alone. Applying the CDC percentages to the county population, up to 13,000 Monmouth County women probably did not receive a mammogram within the past two years. Assuming 6% had incomes below 250% of the federal poverty level, the number of NJCEED-eligible women in the county who did not receive a mammogram within the past two years may be as high as 800.

The population of focus for mammography screening consists of all women in Monmouth County over age 40 (104,618). Additionally, the data cited above suggest that the message concerning the importance of early detection still needs to be disseminated more effectively to minority women, especially blacks. Easy access to mammography services complete with

[j] Excluding unstaged cases, the difference between the white and black percentages diagnosed at late stages does not reach statistical significance, even at the 85% level, while the difference between Hispanic and non-Hispanic percentages is statistically significant at the 99.5% level.

transportation when necessary should be provided. Sensitivity to cultural differences when providing educational outreach is critically important as well.

Cervical Cancer

From 1996 to 2000, 175 new cases of cervical cancer were diagnosed in Monmouth County Compared to white female cervical cancer incidence (9.4), the black female incidence rate averaged nearly three times higher (25.5); the incidence rate among Hispanic females (17.5) was also higher than the rate in all females (10.5). Annually, about 11 women die of cervical cancer in the county (Table 3-20).[1] The Monmouth County mortality rate (3.4) exceeded those of the state (3.1) and the nation (3.0) and fell below the *Healthy New Jersey 2010* recalculated endpoint of 2.0 (Table 4-1).[1;26] Cervical cancer mortality rates in the county were reduced by less than 1% annually from 1976 to 2000, which did not compare favorably to the statewide experience of an average 2% annual reduction over the same timeframe (Table 6-3).[1]

Human papillomavirus (HPV), a sexually transmitted disease, is the most significant risk factor for developing cervical cancer. Recommendations for the incorporation of HPV testing[k] as part of a pelvic examination have been developed by the American College of Obstetricians and Gynecologists.[27;28] Risk factors for cervical cancer include ever being sexually active, lack of routine screening, early onset of sexual intercourse, a history of multiple partners, a history of sexually transmitted infections (especially HPV), obesity, and smoking.

Reductions in sexually transmitted infections will translate to reduced incidence of cervical cancer. Sexually transmitted infection clinics need to counsel infected women about the risks of cervical cancer and the need for annual cervical examinations. As HPV is incurable, the possibility of developing cervical cancer lasts a lifetime, and infected women need to understand the need for diligent follow-up. Women also need to be educated about maintaining up-to-date medical records and to bring those records when changing physicians.

The Papanicolaou ("Pap") test is the primary method for early detection of cervical cancer. Pap tests detect some precancerous as well as cancerous lesions. Some health insurance companies have moved to cover a more sensitive and specific screening test, the AutoPap, which uses a thin preparation of cells along with computer-assisted technology.[27] Among 7,689 New Jersey women with no history of hysterectomy who were interviewed from 2000 through 2002, 83% reported having had a Pap smear within the past three years.[23;24] Based on interviews of 405 women in Monmouth County, the county rate did not differ significantly from the state rate.[24]

Efforts are needed to reduce racial disparities and promote regular cervical examinations. Women with a history of sexually transmitted disease, commercial sex workers, and women with multiple sex partners are at greater risk of developing cervical cancer and therefore should be targeted for focused outreach and prevention.

[k] For example, the ViraPap™ will detect which strains of HPV DNA, if any, are present.

Colorectal Cancer

In Monmouth County approximately 415 new cases of colorectal cancer are reported annually, and approximately 157 persons die of the disease each year (Tables 3-27 through 3-29).[1] Persons aged 50+ accounted for 93% of new colorectal cancer cases in Monmouth County during the years 1996–2000. Colorectal cancer incidence rates in Monmouth County were higher among males (84.3) than females (57.7), and county incidence rates exceeded statewide averages by 6% (79.0 and 54.4 for males and females, respectively). [1]

Colorectal cancer mortality rates in the county exceeded state and national averages for both genders (Table 3-29).[1] The overall mortality rate in Monmouth County (26.1) ranked third highest in the state[29] and fell well below the *Healthy New Jersey 2010* recalculated endpoint of 13.0 (both genders).[30]

Statewide, black men tend to be diagnosed at later stages of the disease than white men; 19% of black men and 14% of white men with colorectal cancer were diagnosed at the distant stage, whereas 37% of black men and 40% of white men were diagnosed at the *in situ* or localized stage. County statistics were not significantly different from these.[1] Increased education efforts should therefore be targeted to persons of color to address this disparity. This would also include Hispanics, despite their lower incidence and mortality rates for colorectal cancer. Hispanics are disenfranchised by virtue of language, economic, and social barriers and would benefit from awareness campaigns in Spanish.

Among 4,961 New Jersey adults aged 50 and over who were interviewed from 2001 through 2002, 56% reported having had colorectal cancer screening (either with a fecal occult blood test within the past year or a sigmoidoscopy or colonoscopy ever).[23;24] Based on interviews of 223 adults in Monmouth County, the county rate of 46% did not differ significantly from the state rate at the standard 5% significance level (although it came close to statistical significance).[l,24] The American Cancer Society reports that nationally 37% of adults over age 50 received a colonoscopy or sigmoidoscopy within the past five years, and 24% received an FOBT in the past year.[31]

The number of individuals in Monmouth County who have been screened for colorectal cancer is not currently known. However, using the 2001 CDC BRFSS percentages of males and females aged 50+ who reportedly ever received a sigmoidoscopy or colonoscopy, an estimate can be derived. By applying CDC statewide data to the Monmouth County population as of 2000, between 77,200 and 86,200 Monmouth County residents over age 50 had received a colorectal cancer screen, either sigmoidoscopy or colonoscopy. The remainder, between 90,000 and 99,000, probably did not receive either test, thus constituting the "unmet" need for additional colorectal cancer screening in Monmouth County. Assuming 6.3% of the Monmouth County

[l] The 95% confidence interval around the state's age-adjusted estimate (using the U.S. 2000 population as standard) was 53.8% to 58.4% of adults aged 50 and above having had colorectal cancer screening. The 95% confidence interval around Monmouth County's age-adjusted estimate was 37.4% to 55.1%. Indeed, if crude (non-age-adjusted) figures are used, Monmouth County's colorectal cancer screening rate (confidence interval 35.6% to 53.9%) was significantly lower than that of the state (confidence interval 54.0% to 58.6%).

population aged 50 and above have incomes below 250% of the federal poverty level, the number of NJCEED-eligible individuals who have not received a colorectal screening test is estimated at approximately 5,700 to 6,300. NJCEED offers colorectal diagnostic screening tests to this population. However, the program has seen limited participation.

Lung

Monmouth County reports approximately 453 new cases annually, the largest incidence of all cancer types. Lung cancer incidence rates in Monmouth County were similar to those in the state for males, but exceeded the state rates for females (62.7 county, 55.4 state). Women (mostly white women) were a higher percent of those with a diagnosis of lung cancer in Monmouth County (48%) than in the state (45%), and new diagnoses among females aged 65–74 have increased both in number and rate per 100,000. Black males also had notably high lung cancer incidence rates (124.0 versus 118.1 statewide) (Table 3-36 and 3-37).[(1)]

As throughout the nation, racial disparities relating to lung cancer are evident in Monmouth County. Black male lung cancer incidence (124.0) was highest among groups for which data are available in the county and much higher than for the next highest category – white males (93.4). Incidence among Hispanic males in Monmouth County (82.7), while lower than that for all males in the county (94.0), was also higher than for Hispanic males in the whole state (67.2) (Table 3-36).[(1)]

Like most cancers, lung cancer is more prevalent among the older population. In both New Jersey and Monmouth County, 68% of new cases were among those over age 65. Persons aged 75+ accounted for 33% of all new cases in the county compared to 34% in the state (Table 3-37).[(1)]

In Monmouth County, more men die of lung cancer each year than women. Contrary to state trends, where mortality rates have declined, Monmouth County rates have increased. Male mortality rates declined 2% from 1976 to 2000, but female mortality has remained relatively consistent increasing 1% from 1988 to 2000 (Table 6-5).[(1)] The Monmouth County female mortality rate for lung cancer (47.7) was higher than that in the state (41.6), and overall mortality rates (58.8) exceeded the *Healthy New Jersey 2010* recalculated endpoint of 44.9 by 24% (Table 3-38).[(1;32)]

The best way to reduce the incidence of lung cancer is to stop smoking or, preferably, never smoke. Reduction of second-hand smoke exposure is closely linked to prevention as well. While statistics are not available to measure tobacco use in Monmouth County, the most recent state data from the 2002 New Jersey Adult Tobacco Survey indicated that 18% of the population use tobacco.[(33)] Considering the high lung cancer incidence rates among Monmouth County women, this percentage may be even higher in the county. While New Jersey residents smoke less than the national average, this percentage is well above the *Healthy People 2010* objective of 12%. Tobacco education needs to begin with youth, who should be strongly discouraged from smoking. The long-range benefits of reaching the school-age population are self-evident and represent perhaps the best strategy for eliminating lung cancer.

In Monmouth County, extensive efforts are well under way to discourage smoking by adults and adolescents. Strategies include enactment of local exposure to environmental tobacco smoke (ETS) ordinances, cooperative programs by all nine health departments to reduce smoking within their respective districts, and tobacco control and/or cessation programs offered by ACS, hospitals, health clinics, businesses, and numerous school districts throughout the county.

Melanoma

Monmouth County reports approximately 140 new cases of melanoma annually, or 11% of the statewide total even though its population is only 7% of the state. Monmouth County melanoma incidence rates for men and women (29.8 and 17.8, respectively) are much higher than the corresponding statewide rates (20.1 and 11.9 for men and women, respectively). In Monmouth County, as elsewhere, melanoma occurs largely among whites, accounting for 99% of new cases from 1996 to 2000 (Table 3-44 and 3-45).[1]

In Monmouth County, 57% of new cases were among those under age 65, compared to 54% statewide. The greatest burden was found in the age cohort 50 to 64, with 30% of new cases in Monmouth County and 27% in New Jersey (Table 3-44).[1]

From 1996 to 2000, New Jersey mortality rates due to melanoma dropped 7%. In contrast, Monmouth County mortality rates from 1976 to 2000 increased 1% (Table 6-6).[1] Overall mortality rates averaged 3.4 and were well above the *Healthy New Jersey 2010* recalculated endpoint of 2.5.[34] In Monmouth County and New Jersey, most cases of melanoma were diagnosed at the localized stage. Only 6.8% of new melanoma cases in Monmouth County were diagnosed at the regional or distant stage (Table 3-47).[1]

Key informants expressed more concern about melanoma than many of the other cancers under study, perhaps owing to Monmouth County's proximity to the shoreline and popular sunbathing activities along the beaches. Compared to other forms of cancer, melanoma does not receive priority attention. NJCEED does not offer skin cancer screening, nor do the health departments. In Monmouth County, greater attention to this form of cancer is needed by all healthcare providers, schools, and advocacy organizations.

Oral and Oropharyngeal Cancer

In Monmouth County, approximately 72 individuals are diagnosed annually with oral or oropharyngeal cancer, and 18 die from the disease. The county incidence rates for this disease among men and women (17.2 and 15.7 respectively) are somewhat higher than those of the state (7.3 and 6.4). Similarly, the county mortality rate for oral and oropharyngeal cancer among females averaged 2.0 per 100,000 compared to 1.6 for the state as a whole; and male mortality averaged 4.3 in Monmouth County compared to 4.2 statewide (Table 3-54).[1] Not only are oral cancer incidence and mortality rates higher in Monmouth County, but declining trends observable throughout the state and nation are less notable in the county. Mortality from this disease dropped by 3% nationally from 1993 to 2000 and by 5% in New Jersey from 1991 to 2000, whereas in Monmouth County the corresponding rate declined by only 2% from 1976 to

2000 (Table 6-7).[1] Overall oral and oropharyngeal cancer mortality rates in the county fail to meet the *Healthy New Jersey 2010* recalculated endpoint of 2.7.[35]

Oral and oropharyngeal cancers are more common among males than females. In terms of actual counts, females had only 54% as many cases as males during the period 1996–2000. The incidence rate for the disease was also higher among black males (25.1 per 100,000), compared to white males (16.6). The rate among Hispanics appears to be higher still (28.2 per 100,000), although the actual numbers are too small to draw conclusions. Black males have a demonstrated history of late-stage diagnoses for oral cancers: 11.5% of the cases in the county diagnosed at the distant stage compared to 3.9% of the cases in white males (Table 3-56).[1]

An identified service gap exists in Monmouth County with regard to dental care for the uninsured. Only two clinics operate in the county: one at Monmouth Medical Center and one at Jersey Shore University Medical Center. Key informants stated that patients typically wait one year or more for a routine dental exam, and the Monmouth clinic no longer accepts new patients due to excessive demand. The primary care centers in Red Bank, Asbury Park, and Keansburg do not provide dental care, nor do primary care physicians practices routinely provide oral exams.[6] Uninsured patients with oral cancer are referred to Monmouth Medical Center first, but some are required to go out of county for treatment. Thus, despite the quality of care offered in the county, the demand far outpaces the capacity, and oral screenings must be considered sorely inadequate among the low-income population.

When looking at surveillance data and combining these with information provided by key informants, it is clear that oral and oropharyngeal cancers are most influenced by risk behaviors that can be modified through education. Early detection among black males lags behind that for whites and females and therefore should be an area of focus to achieve decreasing incidence of this disease. Oral and oropharyngeal cancers are treatable as shown by low mortality rates. However, mortality can be further reduced through early detection at the primary care level.

Prostate Cancer

Monmouth County accounts for approximately 497 new diagnoses of prostate cancer annually. The county's average incidence rate for the disease (193.9 per 100,000) was slightly below that for the state (194.3), which is noteworthy since the county exceeded statewide averages for virtually all other cancers under study (Table 3-61).[1]

In accordance with national statistics, prostate cancer incidence in the county is highest for black males among all racial groups. Monmouth County black males accounted for 9% of all new prostate cancer cases but only 4% of the population over age 15. The prostate cancer incidence rate per 100,000 black males (258.6) exceeded the rate among white males (190.2) by 36% (Table 3-61).[21];[1]

In Monmouth County from 1996 to 2000, 69 men died of prostate cancer annually, accounting for 7% of the statewide total. The county mortality rate for the disease averaged 32.5 and ranks eleventh among the 21 counties. Prostate cancer mortality rates have declined 4% annually from 1990 to 2000. These statistics are comparable to the state and national experience (Table 3-63).[1]

Mortality among blacks from prostate cancer is much higher than mortality among whites both in Monmouth County and in New Jersey. Countywide, mortality among blacks for the disease averaged 79.2 compared to 30.3 among whites. From 1976 to 2000, the Monmouth County prostate cancer mortality rate for blacks ranked second highest in New Jersey (Table 3-63).[1;36].

Public awareness of prostate cancer has increased dramatically in recent years owing to high visibility of celebrities, politicians, or other public figures who are also survivors of prostate cancer. Yet, many men prefer to avoid screening. According to key informants interviewed for this study, many males of black or other minority racial and ethnic backgrounds resist efforts to become educated about prostate cancer and to schedule a PSA test. NJCEED offers reduced-cost PSA tests to low-income persons throughout the county. The program, however, is quite limited and is reaching only a small portion of the low-income population. The NJCEED Program in Monmouth County is actively working to dispel myths about prostate cancer and to encourage PSA screening through a county coalition of healthcare providers and community organizations. Strategies include outreach to male social clubs, barber shops, shopping centers, and athletic facilities. Spouses are also targeted as influence leaders.

Bladder Cancer

New Jersey's bladder cancer incidence rates are higher than those of the nation for all race and ethnic categories.[4] Mortality due to bladder cancer is higher in New Jersey than in the nation overall. The American Cancer Society estimated that bladder cancer in 2003 would be the sixth most common cause of cancer mortality in the U.S. and the fifth most common in New Jersey.[37] Approximately 992 individuals in Monmouth County are living with a diagnosis of bladder cancer, and about 168 new cases are diagnosed annually. As a county, Monmouth ranks fourth highest in New Jersey for new diagnoses of the disease. Bladder cancer is more prevalent among males than females, and especially among older white males. From 1997 to 2000, incidence rates for males averaged 47.2 per 100,000 (compared to 45.6 statewide) and 13.2 per 100,000 for females (compared to12.0 statewide).[38] Bladder cancer incidence trends from 1997 to 2001 have remained stable for both males and females.

If symptoms or signs of a urinary tract problem exist, a physician may order tests which could help detect a bladder tumor. As part of many routine physical exams, including in asymptomatic patients, a urinalysis is performed. If the urinalysis shows evidence of blood, further investigation may be conducted as medically indicated. However, a urinalysis is neither sensitive nor specific for detecting bladder tumors in terms of general population screening. There remains a need for better screening methodologies to be developed to detect early stage bladder tumors.

Section 4 – Discussion, Analysis and Recommendations

This section presents recommendations and strategies resulting from evidence presented in this report. This section is divided into three parts: (1) recommendations for county and local priorities, (2) recommendations for evidence-based interventions, and (3) recommendations for state priorities. A summary of major findings precedes identification of specific goals and objectives. The relationship between the recommendations and strategies to the 10 essential

public health services (EPHS), *Healthy New Jersey 2010* (HNJ2010), or the New Jersey Comprehensive Cancer Control Plan (NJ-CCCP) are also provided.

Recommendations for County and Local Priorities

From the evidence presented in this report, the system of care in Monmouth County is well advanced and well directed. This system should be available to all residents of the county. To accomplish this, improving access to care is key. Particular attention needs to be placed on access to specialty care for low-income individuals, as well as on access to educational and screening resources. Therefore, the first recommendation for this county is *to improve access to cancer programs and services for low-income individuals, and particularly those who do not understand or are unable to navigate the system effectively.* These include the uninsured and all other populations experiencing difficulty with accessing care.

The second recommendation in Monmouth County addresses the *need to promote early detection to reduce cancer mortality.* Work is already focused on breast, cervical, colorectal, and prostate cancer in Monmouth County. Melanoma and oral cancer screenings also need to be widely available throughout the county. As skin and oral cancer screenings are relatively low cost and minimally invasive, increasing activities in these areas should be relatively easy to accomplish. Primary care clinics and dentists should be held to practice standards that include cancer screenings.

The third recommendation is *to advance awareness of cancer prevention in the county*. As a long-term strategy, promoting a healthy lifestyle can enhance an individual's ability to prevent cancer or, if that does not occur, to reduce the devastating effects of the disease. In Monmouth County, evidence presented in this study suggests two priority areas – smoking and excessive sun exposure. Nutrition, weight control, and exercise are also important as preventive strategies. Awareness campaigns have many venues, but the most effective, according to the findings of this study, are the media and one-on-one interaction. Development of neighborhood coalitions and volunteers are appropriate activities to support this priority.

The fourth recommendation is *to empower the public health sector to implement appropriate prevention and early detection programs*. This includes adopting public ordinances aimed at tobacco control, providing resources for community-based screening and education activities, developing databases to coordinate knowledge of cancer-related activities and statistics, and engaging the community itself as a partner.

MON-1: Improve access for low-income individuals. (EPHS 7)

Strategies:

MON-1.1 Develop grant programs to provide transportation for cancer patients without automobiles. Increase flexibility in scheduling pick-up and drop-off appointments. Include transportation to diagnostic radiology facilities as well as treatment centers. (EPHS 4)

MON-1.2 Expand translation services to include Asian languages as well as Spanish. (EPHS 8)

MON-1.3 Locate support groups in local neighborhoods and provide support services directly in the home. Utilize trained culturally compatible volunteers for personalized support services. (EPHS 4)

MON-2: Promote early detection and reduce cancer mortality. (EPHS 3)

Strategies:

MON-2.1 Continue to support the NJCEED program in Monmouth County. Expand screenings to include skin and oral cancers. (EPHS 7)

MON-2.2 Monitor the extent to which primary care physicians and dentists routinely screen for cervical, skin, and oral cancers. (EPHS 1)

MON-2.3 Develop a countywide program to assure compliance with oral health practice standards. (EPHS 8)

MON-2.4 Continue to expand the locations where cancer screenings are conducted through use of mobile health vans. Locate screening activities within local neighborhoods. (EPHS 7)

MON-2.5 Provide weekend and evening cancer screening services. (EPHS 7)

MON-2.6 Encourage all the local health departments to participate in NJCEED or to offer independent cancer screening programs in their communities. (EPHS 4)

MON-3: Advance awareness of cancer prevention and early detection. (EPHS 3)

Strategies:

MON-3.1 Develop more visual aids and reduce reliance on written information. Include videos in multiple languages including sign. (EPHS 3)

MON-3.2 Develop a communication link with linguistically isolated families and local healthcare providers. (EPHS 4)

MON-3.3 Continue to utilize employers and faith-based organizations to assist with awareness promotion. Focus efforts on the low-income communities where churches function as community centers. (EPHS 4)

MON-3.4 Expand the corps of informed volunteers who will provide one-on-one outreach in local neighborhoods. (EPHS 8)

MON-3.5 Continue to develop community cancer prevention coalitions, and emphasize outreach to underprivileged populations, particularly those who need assistance in navigating the system of care. (EPHS 4, 9)

MON-3.6 Encourage development of school health advisory councils, and continue to teach youth throughout the county about the importance of not smoking, limiting sunbathing, eating healthy foods, and exercising regularly. (EPHS 3, 7)

MON-4: Empower the public health sector to implement prevention and early detection programs. (EPHS 3)

Strategies:

MON-4.1 Develop a central information repository, to be shared by local health departments, which includes calendars of educational and outreach programs and other information to assist in coordination of services. (EPHS 3)

MON-4.2 Provide additional resources to local health departments to facilitate development of cancer prevention and early detection programs and to support the implementation of new practice standards. (EPHS 5)

MON-4.3 Continue to develop ordinances aimed at reducing or eliminating tobacco smoke in Monmouth County. (EPHS 6)

MON-4.4 Incorporate cancer prevention and control activities into the public health performance implementation instrument. (EPHS 1, 9, 10)

Recommendations for Evidence-based Interventions: Cancer-Specific Goals Objectives

The goals of *Healthy New Jersey 2010* are also applicable to Monmouth County. Recognizing the breadth of the cancer problem and the limitations of time and resources, priorities need to be established based on evidence presented in this study.

Statewide goals and objectives for New Jersey are clearly defined in *Healthy New Jersey 2010* and the NJ-CCCP, and they form the basis for many of the recommendations and strategies proposed for Monmouth County. Goals and objectives specific to Monmouth County and specific to each cancer type are provided below. They are evidence-based, utilizing data presented in this study, and pertain to reductions in mortality and increases in early stage diagnoses. The findings of this study as they relate to the epidemiology of the disease frame the objectives that follow and are summarized as follows.

- Cancer incidence rates are higher in Monmouth County than statewide for nearly all cancer types under study. The cancer burden in Monmouth County is greatest for breast, lung, and prostate cancers. The largest population segment with cancer is white females. Most cancers in Monmouth County develop in older adults aged 50+. Therefore, when addressing the cancer burden, these populations constitute the obvious areas of focus. Variations are found among cancer types, and these are addressed separately.

- Cancer incidence among black males is a concern, especially with lung and prostate cancers. Moreover, black males tend to be diagnosed at a later stage than other populations, suggesting that they probably access primary health care less often and are more difficult to reach for prevention and education.

- Encouraging downward trends are apparent in cancer mortality statewide, and – with the exception of lung cancer, which is rising – similar trends are seen in Monmouth County. However, rates of decline are below the statewide experience for all cancers under study. Early detection and equal access to care could further improve mortality rates.

- Risk factors associated with cancer in Monmouth County do not differ significantly from those in other parts of the state, with one possible exception. Melanoma appears to be more of a problem in Monmouth County, possibly owing to its proximity to the beaches and preponderance of outdoor activities. Awareness programs aimed at changing risky behaviors need to be supported in Monmouth County. In particular, youth should continue to be targeted with regard to excessive exposure to the sun.

Because incidence and mortality in Monmouth County are higher than the statewide averages, it may be difficult to reach the *Healthy New Jersey 2010* objectives in the near term. Therefore, objectives offered here are first to lower the county to the equivalent of the statewide norm and then to achieve the long-term objective as established in *Healthy New Jersey 2010*. Objectives presented below are formulated for the near term. *Healthy New Jersey 2010* recalculated endpoints are provided in parentheses for comparative purposes.

MON-5 The goal driving all cancer-specific objectives is to *reduce mortality and increase survivorship through early detection, education, and treatment.*

Breast Cancer

Incidence rates for breast cancer in Monmouth County exceed statewide averages and have remained relatively constant over the past five years. However, rates for women aged 40 to 49 and 50 to 64 appear to be increasing. In Monmouth County, breast cancer mortality rates among white and black women are above the average, and late-stage diagnoses among black women also are higher than state or national experiences.

MON-5.1 Reduce breast cancer age-adjusted mortality rates in Monmouth County from 32.7 per 100,000 to the statewide average of 31.3 (*HNJ2010* target=21.5); reduce mortality rates for black women first to equal that of white women (32.7) and then to equal the statewide average for white women (31.2) (*HNJ2010* target=28.5); reduce mortality rates for women aged 50 to 64 to 56.9 and for women aged 65+ from 151.5 to the statewide average of 141.5 (*HNJ2010* target=47.9 for women

50-64 and 118.1 for women 65+); increase the percentage of *in situ* or local diagnoses to 75.0%. This objective holds equally for women of all races and ethnicities (*HNJ2010* target=65.9%).

Strategies:

While it may not be possible to reduce incidence of breast cancer, mortality can be reduced through early detection. Therefore, recommendations focus on improving access to mammography for all women in the county. Successful efforts to provide breast cancer screening to all women over age 40 in Monmouth County should be continued. Additional outreach focused on low-income women is still needed, along with increased efforts to bring black women into care. Along with early detection, low-income women must be assured the availability of treatment regardless of ability to pay.

Cervical Cancer

The mortality rate due to cervical cancer has been reduced by less than 1% annually, which does not compare favorably to the statewide experience. Incidence rates in Monmouth County among black and Hispanic women are considerably higher than for white women, indicating apparent disparities in early detection of premalignant conditions. Further, mortality rates are much higher among black women than white women statewide, further indicating a difference in accessing care at the early stages of the disease. These disparities need to be eliminated.

MON-5.2 Reduce the age-adjusted death rate of cervical cancer in Monmouth County from 3.4 per 100,000 to the statewide average of 2.9 (these reduction apply to women of all races and ethnicity); reduce the cervical cancer annual mortality rate per 100,000 among women aged 65+ from 3.4 to 1.7 (HNJ2010 target=5.0 and endpoint=0.7); reduce the age-adjusted incidence rate of cervical cancer in Monmouth County from 12.7 to 10.5 overall. (HNJ2010 target=6.8); reduce the incidence of cervical cancer among black women from 41.6 to the statewide average of 19.6. (NJH2010 target=7.0).

Strategies

Cervical cancer can be prevented with application of regular cervical examinations and reduction of high-risk behaviors related to contraction of HPV. Health departments are urged to monitor practice standards at all publicly funded clinics to assure that all women over age 15 receive regular annual Pap tests. Outreach programs for high-risk populations such as commercial sex workers should be developed. Programs for lifelong follow-up for women testing positive for HPV are needed.

Colorectal Cancer

Colorectal cancer in Monmouth County has continued at a steady pace over the past five years. Incidence rates have exceeded statewide averages for all races and genders. Male mortality exceeds female mortality, despite the equivalence of incidence. Likewise, mortality rates are higher in Monmouth County, especially among persons aged 65+. Progress in reducing mortality has been slower in Monmouth County than in the state and the nation.

MON-5.3 Reduce the age-adjusted mortality rate for colorectal cancer in Monmouth County from 26.1 to 23.1 (HNJ2010 target=18.6); reduce the age-adjusted mortality rate for individuals aged 65+ from 143.9 to the statewide average of 125.7 and thereafter to the national average of 109.2 (HNJ2010 target=124.8); reduce the male mortality rate from 31.5 to the national average of 25.8, thereby bringing it more in line with female mortality (HNJ2010 target=22.1 for white males and 26.9 for black males); increase *in situ* or localized diagnoses from 34.8% to the statewide average of 38.3%.

Strategies

To reduce mortality and improve early detection, screening programs need to be expanded throughout the county. Awareness can be increased by utilizing local community leaders, particularly in the minority communities, in this effort. As virtual colonoscopy may represent an attractive alternative to traditional colonoscopy, providers are encouraged to offer this modality.

As colorectal cancer is linked to nutrition, public acceptance of improving diets should be a goal. The message should be advanced throughout the county through media and health care professionals. More importantly, informed volunteers are necessary to penetrate the minority communities, where language and cultural differences can represent barriers to prevention.

Lung Cancer

In Monmouth County, lung cancer incidence and mortality exceed state and national averages, and early detection lags behind these norms as well. Further, the percentage of women (mostly white women) with diagnosis of lung cancer in Monmouth County (48%) is greater than the state average of 45%, and new diagnoses among females aged 65–74 have increased both in number and rate per 100,000. Black males also have significantly higher incidence rates – 124.0 vs. 118.1 statewide. Smoking cessation programs targeted to these populations are recommended to reduce their likelihood of contracting lung cancer.

Objectives relating to lung cancer mortality seek to reduce incidence overall and to eliminate racial and gender disparities. In Monmouth County, over 65% of all new diagnoses are at regional or late stages, and an increase in early diagnosis is a difficult objective to achieve.

MON-5.4 Reduce lung cancer age-adjusted incidence rates per 100,000 from 94.0 to 92.5 for males and from 62.7 to 55.4 for females; reduce age-adjusted mortality rates per 100,000 from 76.6 to 62.2 for all males and from 47.7 to 44.1 for all females (HNJ2010 target=47.9 for male and 40.5 for female); reduce age-adjusted mortality per 100,000 of lung cancer among black males from 102.2 to 73.7 (HNJ2010 target=45.3); reduce the percentage of the population who smoke, in accordance with targets established by the New Jersey Strategic Plan for a Comprehensive Tobacco Control Program.

Strategies

Lung cancer incidence can be reduced by eliminating tobacco consumption in Monmouth County. Therefore, the importance of supporting smoking cessation programs for adults and educating youth not to smoke cannot be over emphasized. Likewise, programs that raise awareness of the dangers of tobacco use and the likelihood of developing late-stage lung cancer should be continued and supported. Schools, parents, and youth organizations are urged to take the lead in this effort.

As recommended in the New Jersey Strategic Plan for a Comprehensive Tobacco Control Program, enforcement of tobacco age-of-sale laws along with public and private partnerships with cooperation of merchants should be strengthened throughout the county. Further development of public ordinances restricting tobacco sales and increasing clean air policies would also be effective. Attention to clean air standards, particularly exposure to toxic elements such as radon and asbestos, should also be maintained, especially in places with older housing stock. Efforts aimed at prevention are recommended.

Melanoma

The rise in incidence of melanoma is a concern nationwide and in New Jersey. Because of its proximity to the shoreline, Monmouth County should be an area of focus for this disease. Age-adjusted incidence and mortality rates per 100,000 population exceed statewide averages by considerable margins. Melanoma is more prevalent among whites, who constitute 86% of residents over 18 years of age and who also account for 99% of all new diagnoses of melanoma in Monmouth County.

MON-5.5 Reduce the age-adjusted incidence rate of melanoma in Monmouth County from 29.8 per 100,000 for males and 17.8 per 100,000 for females and to the statewide average of 20.1 for males and 11.9 for females (HNJ2010 targets=12.4 for white males; 7.7 for white females); reverse the rising trend of melanoma among persons aged 75+ and reduce age-adjusted incidence rates from 135.4 per 100,000 to 94.5 for males and from 58.1 to 38.9 for females, all races notwithstanding; increase the percentage of early-stage melanoma diagnoses from 83.7% to a minimum of 85% and preferably higher.

Strategies

Melanoma can be prevented through avoiding harmful exposure to the sun. Youth are particularly prone to sunbathing, and young males frequently work outdoors as landscapers or builders. They can be educated to protect themselves and thereby reduce the risks of developing melanoma. To reach the youth of Monmouth County, schools and youth organizations should mobilize to a greater extent than is done presently. The ACS, a few faith-based organizations, and about a dozen schools have active prevention programs in place. These need to be extended and supported. In addition, utilizing the media frequented by young people can serve as an effective means for spreading the message.

There is a need to increase skin cancer screening throughout the county. Most primary care centers and local health departments currently do not have sufficient programs in place. The NJCEED program does not include skin cancer screening.

Oral and Oropharyngeal Cancer
In Monmouth County, oral and oropharyngeal cancer appears to be a greater problem than elsewhere in the state. Not only are incidence and mortality rates higher in Monmouth County, but declining trends observable throughout the state are not as great locally.

While males experience a higher rate of oral cancer incidence, female mortality in Monmouth County is second highest in the state. Further, incidence among blacks and Hispanics consistently outpaces that among whites, both for males and females. In addition, black males have a demonstrated history of late-stage diagnoses.

MON-5.6 Reduce the age-adjusted incidence rate of oral and oropharyngeal cancer in Monmouth County from 17.2 to 12.8 per 100,000 for males and from 7.3 to 5.0 for females; reduce the age-adjusted incidence rate of black males from 25.1 and of Hispanic males from 28.2 to 12.8 for both segments; reduce the age-adjusted mortality rate for females from 2.0 to 1.7 and for females age 65+ from 11.8 to 8.9 per 100,000 population; reduce the percentage of regional or distant stage diagnoses from 51.0% to 40.0% for males and from 41.5% to 35.0% for females. (HNJ2010 target=40.0% for males and 35.0% for females).

Strategies

Oral and oropharyngeal cancer mortality can be reduced through early detection, which can be accomplished by increasing oral exams throughout the county. For the low-income population, however, access to routine oral care is extremely difficult in Monmouth County. Not enough resources and facilities are available, thereby forcing low-income residents to seek care out of county or to forego care entirely. This increases the risk of late-stage diagnoses. It is imperative to identify additional resources for provision of oral health care for the low-income populations.

To assure that oral exams are performed routinely, a program should be put in place to monitor adherence to dental practice standards calling for a cancer screening examination with every routine visit. Oral health professionals are encouraged to work with private and especially with clinic dentists in this effort.

Public awareness of the risk of developing oral cancer from tobacco use and especially cigars and pipes needs to be heightened. The message should, of course, be spread to all populations but especially to black males in the county.

Prostate Cancer
Unlike most other cancers under study, prostate cancer incidence rates in Monmouth County are below statewide averages. While this may seem encouraging, it may also indicate insufficient early detection. Age-adjusted mortality rates for black males exceed the statewide average and thus point to the need for additional intervention.

Unstaged prostate cancer cases constitute nearly 18% of all new diagnoses, the largest percentage of the seven cancers under study. By increasing screening efforts, that percentage can be reduced.

Objectives:

MON-5.7 Reduce the age-adjusted prostate cancer mortality rate in Monmouth County in from 32.5 per 100,000 to 24.7 (HNJ2010 target=24.7); reduce age-adjusted prostate cancer mortality rates in Monmouth County for white males from 30.3 to 25.7 per 100,000 and for black males from 79.2 to 56.1 (HNJ2010 target=25.7 for white male; 56.1 for black male; reduce the percentage of unstaged prostate cancer diagnoses from 17.9% by one-half.

Strategies

Despite controversies surrounding the efficacy of prostate cancer screenings, most experts agree that early detection is beneficial and contributes to survivorship.[39] Therefore, this study supports the policy of recommending PSA and DRE exams for all men over age 50. Outreach targeted to men of color is indicated by higher mortality rates and higher percentage of late-stage diagnoses. For the low-income population, the NJCEED program in Monmouth County should focus on reaching more men.

Outreach is a recognized challenge, as many resist screening. Innovative strategies including enlisting support from spouses could increase the number of men who agree to a PSA test.

Hispanics and Other Ethnic Groups

Owing to small case counts, the status of cancer incidence and mortality among Hispanics and other ethnic groups in Monmouth County has been given relatively little attention in this study. This does not in any way infer that cancer is unimportant or less of a problem among the ethnic populations. Simply put, data are insufficient for analysis. Data may also be unreliable as identification of ethnicity may not always be correctly recorded at the time of diagnosis. Hopefully, future data collection may provide more accurate statistics of cancer incidence and mortality among this population. Interventions recommended in this study pertain as much to Hispanic and other ethnic communities as to any other population in Monmouth County, especially with regard to early detection and awareness strategies.

Recommendations for Statewide Priorities

Recommendations for statewide priorities are offered as they relate to the identified needs of Monmouth County. Most correspond to those established in the NJ-CCCP. The findings of this study indicate a need for statewide programs that address the following county priorities: (1) reduction of poverty and provision of adequate health insurance for those who are either uninsured or underinsured; (2) enhancement of Medicaid payment levels, particularly for private physicians; (3) continuation and/or enhancement of federal/state prevention, early detection, and education programs for low-income populations; (4) improvements in the public education system with regard to nutrition, physical education, smoking, and disease prevention; (5) mandates for culturally specific services, educational materials, and media messages.

MON-6.1 Improve access to cancer-related care for the high-risk and low-income populations. (NJ-CCCP AC-1)

Strategies

MON-6.1.1 Advocate for full funding of state health insurance programs, including charity care, Medicaid, and FamilyCare (AD-2.1)

MON-6.1.2 Advocate for programs that offer financial incentives for physicians to accept low-income patients and for home health agencies to accept Medicaid. (AC-1)

MON-6.1.3 Support local efforts to improve access for the elderly, particularly those without transportation. (AC-3)

MON-6.1.4 Reduce cancer-related disparities among minorities, seniors, and the medically underserved through continued funding for programs dedicated to these populations. (AD-3)

MON-6.1.5 Expand access to dental care for low-income populations, either through expansion of dental clinics or through financial incentives for private dentists. (OR-3)

MON6.2 Expand cancer early detection and education programs to foster greater participation among minorities and low-income populations. (AC-2)

Strategies

MON-6.2.1 Continue to support the NJCEED program. Expand the presumptive eligibility requirement to include younger and older individuals who are currently not eligible for the program. (AC-2.17) Expand funding beyond the present 18% of eligible population.

MON-6.2.2 Develop statewide programs to improve access to oral cancer screening. (OR-2)

MON-6.2.3 Establish a statewide media and public education campaign to raise awareness of melanoma and available strategies for prevention. (ME-2, ME-4, MD-5)

MON-6.3 Promote prevention and education activities among adults and youth.

Strategies

MON-6.3.1 Support education and media campaigns to promote good nutrition, weight control, and physical exercise for cancer prevention. (NP-1)
MON-6.3.2 Work with the New Jersey Department of Education to enhance healthy lifestyle education, good nutrition, and physical exercise into the school curricula. (NP-1)
MON-6.3.3 Continue to support the New Jersey Tobacco Control Program and advocate for legislation to curb tobacco use in public places. (OR-12)

MON-6.4 Work toward eliminating racial and ethnic disparities through provision of culturally appropriate and competent cancer-related services.

Strategies

MON-6.4.1 Provide incentives for development of videos and other education materials in foreign languages, particularly Spanish and Asian languages. (AC-4)
MON-6.4.2 Develop strategies for recruitment of minority healthcare professionals as well as outreach workers. (AC-4.3)
MON-6.4.3 Assure access to clinical trials for all persons with a diagnosis of cancer without regard to socioeconomic/insurance status or cultural orientation. (ET-1)
MON-6.4.4 Promote the benefits of hospice and survivor support services to those populations whose cultures are otherwise unfamiliar or unreceptive to palliative care. (PA-2)

Research-tested Interventions

A limited search for successful field-tested interventions that could be applied to the Monmouth County recommendations yielded few that have been proven conclusively effective. However, some studies are worthy of mention and support the recommendations that focus on early detection, outreach, and prevention.

Several studies have attempted to measure effectiveness of interventions aimed at promoting screening participation. Recommendations include:

- Using incentives combined with reminders.[40]
- Using direct personal communication as a key component of outreach.[41]
- Carefully planning locations of outreach interventions directly in places frequented by the target populations. Engaging hard-to-reach populations has been shown to be successful from efforts by primary care practices located directly in minority neighborhoods.[42-44]

Prevention programs with published results provide information about strategies that have been tried. To summarize:

- Nutritional programs that promotes the 5-a-Day fruit and/or vegetable program have been most effective when combined with personalized education and incentives, such as coupons.[45]
- Employers make effective partners in encouraging healthy nutritional practices.[46]

- Individual counseling, self-help programs, and group behavioral counseling for smoking cessation have demonstrated approximately equal success rates. Thus, no one method is preferred over another.[47-49]

Research supports programs that use community health advisors within ethnic communities, CD-ROM and web-based educational programs for youth or computer literate individuals, or "low-tech" videotapes for those who prefer not to use computers.[50-52] Underlying themes support one-on-one efforts when trying to reach special populations.

Awareness campaigns that utilize celebrities are recommended for Monmouth County and are supported by evidence suggesting that this strategy can be effective.[53]

Many of the suggested interventions for outreach and education can be successfully delivered using a creative assortment of mechanisms. For example, education about healthy behavior, lifestyles, cancer risk factors, and screening could be developed as part of local literacy efforts and in curricula to teach English as a second language. The message to get screened could also be embedded in smoking cessation programs, a natural partner for advocating mammography, prostate, and oral cancer screening. In addition, churches, beauty salons, and other places that women frequent should be enlisted for breast and cervical cancer education and screening. Recent evidence exists that church attendance is related to better screening rates as well as better health behaviors.[54] Given the predilection for cervical cancer in early sexual intercourse and HPV infection, school health curricula are ideal mechanisms to educate about the risk factors for the disease and to advocate for appropriate screening with a Pap test. With regard to prostate cancer, education about PSA tests could also be embedded in school health curricula, which are ideal mechanisms to educate boys and young men the risk factors for the disease and to employ them as advocates at home to induce their fathers, uncles, or grandfathers to learn more about the risk factors and the risks and benefits of screening.

Closing Remarks

The Cancer Capacity and Needs Assessment provides a detailed baseline assessment for Monmouth County. The data, interpretations, and recommendations in this report were developed to provide a wide array of public health and medical personnel with standardized information and detailed analyses that can help guide and focus their efforts at the county level, including such local health initiatives as the forthcoming Community Health Improvement Plans. The reports from all of the counties will collectively inform the continuing comprehensive cancer control efforts of the Office of Cancer Control and Prevention of the New Jersey Department of Health and Senior Services; the Governor's Task Force on Cancer Prevention, Early Detection and Treatment in New Jersey; and the University of Medicine and Dentistry of New Jersey.

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